

2.1 Order of Operations

(Textbook Pages: Pages 88– 89)

Name _____

A) Complete the following using the order of operations. Do only **ONE STEP** at a time.

For each step, list the specific problem you are doing for that step and its answer in the first column, and then substitute that answer into the problem and state the result in the second column.

The first one is completed as an example.

$$1) \quad 5 - 7 + 3^3 \div 9 \cdot (7 - 9)$$

a) Problem/Answer: $7 - 9 = -2$ Result: $5 - 7 + 3^3 \div 9 \cdot (-2)$

b) Problem/Answer: $3^3 = 27$ Result: $5 - 7 + 27 \div 9 \cdot (-2)$

c) Problem/Answer: $27 \div 9 = 3$ Result: $5 - 7 + 3 \cdot (-2)$

d) Problem/Answer: $3 \cdot (-2) = -6$ Result: $5 - 7 + (-6)$

e) Problem/Answer: $5 - 7 = -2$ Result: $(-2) + (-6)$

f) Problem/Answer: $(-2) + (-6) = -8$ Result: -8

$$2) \quad 8 + (-3^2 + 3) \div 2 \cdot 4 - 6$$

$$3) \quad [24 \div (1 - 3)^2 + 3 \cdot (-2)]^4$$

Problem/Answer Result

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____

Problem/Answer Result

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____

$$4) \quad [2 + (3 - 5)6] \div (5 \cdot 8 - 10)$$

Problem/Answer Result

- a) _____
- b) _____
- c) _____

Problem/Answer Result

- d) _____
- e) _____
- f) _____

5) $12 + 25 \div (2 + 3) \cdot (4 - 5)^2$

6) $-2^2[4(8 - 2 \cdot 3) + 7] - 2^2$

Problem/Answer		Result	Problem/Answer		Result
a)	_____	_____	a)	_____	_____
b)	_____	_____	b)	_____	_____
c)	_____	_____	c)	_____	_____
d)	_____	_____	d)	_____	_____
e)	_____	_____	e)	_____	_____
f)	_____	_____	f)	_____	_____
			g)	_____	_____
			h)	_____	_____

7)
$$\frac{(3 - 5 \cdot 2^3 + 1) \div 9}{(5 - 6)^3 + 6 \div 2}$$

Numerator		Denominator	
Problem/Answer	Result	Problem/Answer	Result
a)	_____	a)	_____
b)	_____	b)	_____
c)	_____	c)	_____
d)	_____	d)	_____
e)	_____		

FINAL: Problem/Answer _____

B) Exercises: page 91 #56 - 70 all
 Show ALL steps ---
 DO NOT use a calculator.